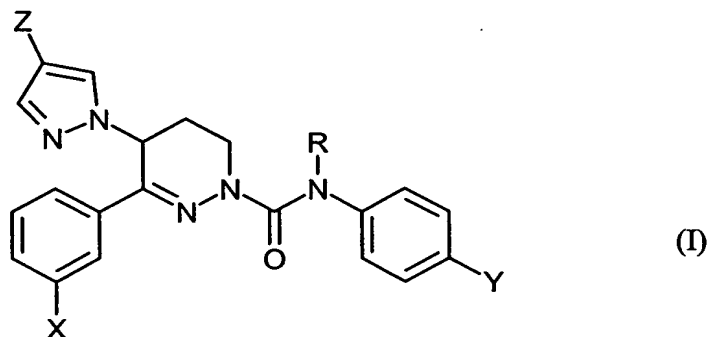


**Patent Claims**

1. Tetrahydropyridazine derivatives of the formula (I),



5           wherein

R       represents any possibly substituted alkyl, alkoxy-carbonyl, alkenyl, alkynyl, cycloalkyl or cycloalkylalkyl,

X       represents cyano, halogen, halogenoalkyl, halogenoalkoxy, alkylthio, alkylsulfinyl, alkylsulfonyl, halogenoalkylthio, halogenoalkylsulfinyl or halogenoalkylsulfonyl,

Y       represents cyano, halogen, halogenoalkyl, halogenoalkoxy, halogenoalkylthio, halogenoalkylsulfinyl or halogenoalkylsulfonyl, and

Z       represents hydrogen, hydroxy, nitro, cyano, carbamoyl, halogen, alkyl, alkoxy, alkylthio, halogenoalkyl, halogenoalkoxy, halogenoalkylthio, alkoxy-carbonyl, alkylaminocarbonyl or dialkylaminocarbonyl.

2. Tetrahydropyridazine derivatives of the formula (I) according to claim 1, wherein

20       R       represents optionally cyano, carboxy, carbamoyl, halogen, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkyl-carbonyl or C<sub>1</sub>-C<sub>4</sub> alkoxy-carbonyl substituting for an alkyl with 1 to 6 carbon atoms; alkoxy-carbonyl with up to 6 carbon atoms; any optional cyano or halogen substituting for alkenyl or alkynyl with each 2 to 6 carbon atoms; or any optional cyano, halogen or C<sub>1</sub>-C<sub>4</sub> alkyl substituting for cycloalkyl or cycloalkylalkyl each with

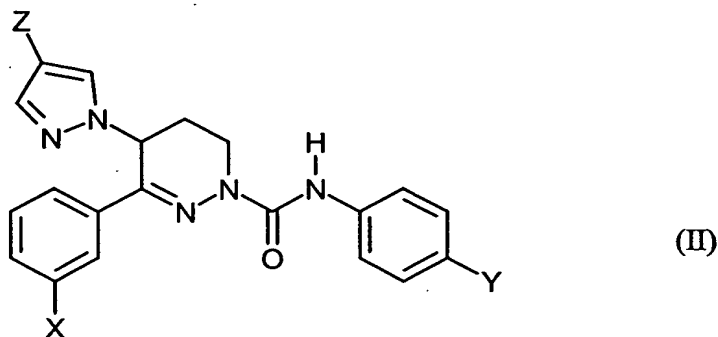
25       3 to 6 carbon atoms in the cycloalkyl group and, optionally, 1 to 4 carbon atoms in the alkyl section,

- X represents cyano, halogen, C<sub>1</sub>-C<sub>4</sub> halogenoalkyl, C<sub>1</sub>-C<sub>4</sub> halogenoalkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio, C<sub>1</sub>-C<sub>4</sub> alkylsulfinyl, C<sub>1</sub>-C<sub>4</sub> alkylsulfonyl; C<sub>1</sub>-C<sub>4</sub> halogenoalkylthio, C<sub>1</sub>-C<sub>4</sub> halogenoalkylsulfinyl or C<sub>1</sub>-C<sub>4</sub> halogenoalkylsulfonyl, whereby the halogenoalkyl groups each contain 1 to 5 same or different halogen substituents from the fluorine, chlorine and bromine series,
- Y represents cyano, halogen, C<sub>1</sub>-C<sub>4</sub> halogenoalkyl, C<sub>1</sub>-C<sub>4</sub> halogenoalkoxy, C<sub>1</sub>-C<sub>4</sub> halogenoalkylthio, C<sub>1</sub>-C<sub>4</sub> halogenoalkylsulfinyl or C<sub>1</sub>-C<sub>4</sub> halogenoalkylsulfonyl, whereby the halogenoalkyl groups each contain 1 to 5 same or different halogen substituents from the fluorine, chlorine and bromine series,
- Z represents hydrogen, hydroxy, nitro, cyano, carbamoyl, halogen, C<sub>1</sub>-C<sub>4</sub> alkyl, C<sub>1</sub>-C<sub>4</sub> alkoxy, C<sub>1</sub>-C<sub>4</sub> alkylthio; C<sub>1</sub>-C<sub>4</sub> halogenoalkyl, C<sub>1</sub>-C<sub>4</sub> halogenoalkoxy, C<sub>1</sub>-C<sub>4</sub> halogenoalkylthio, whereby the halogenoalkyl groups each contain 1 to 5 same or different halogen substituents from the fluorine, chlorine and bromine series; C<sub>1</sub>-C<sub>4</sub> alkoxy-carbonyl, C<sub>1</sub>-C<sub>4</sub> alkyl-amino-carbonyl or C<sub>1</sub>-C<sub>4</sub> dialkyl-amino-carbonyl.
3. Tetrahydropyridazine derivatives of the formula (I) according to claim 1, wherein
- R represents optionally any cyano, carboxy, carbamoyl, fluorine, chlorine, methoxy, ethoxy, n- or i-propoxy, acetyl, propionyl, n- or i-butyryl, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl substituting for methyl, ethyl, n- or i-propyl, n-, i- or s-butyl; optionally any cyano, fluorine and/or chlorine substituting for ethenyl, propenyl, butenyl, ethinyl, propinyl or butinyl; or any optional cyano, fluorine, chlorine, methyl or ethyl substituting for cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl or cyclohexylmethyl,
- X represents cyano, fluorine, chlorine, bromine, difluoromethyl, trifluoromethyl, dichloromethyl, trichloromethyl, chlorodifluoromethyl, fluorodichloromethyl, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, trifluoromethylthio, tri-

- fluoromethylsulfinyl or trifluoromethylsulfonyl,
- Y represents cyano, fluorine, chlorine, bromine, difluoromethyl, trifluoromethyl, dichloromethyl, trichloromethyl, chlorodifluoromethyl, fluorodichloromethyl, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, trifluoromethylthio, trifluoromethylsulfinyl or trifluoromethylsulfonyl,
- 5 Z represents hydrogen, cyano, carbamoyl, chlorine, bromine, methyl, methoxy, methylthio, trifluoromethyl, trifluoromethoxy, trifluoromethylthio, methoxycarbonyl, ethoxycarbonyl, methylaminocarbonyl, ethylaminocarbonyl or dimethylaminocarbonyl.
- 10
4. Tetrahydropyridazine derivatives of the formula (I) according to claim 1, wherein
- R represents optionally any cyano, fluorine, chlorine, methoxy, ethoxy, acetyl, propionyl, methoxycarbonyl, ethoxycarbonyl, n- or i-propoxycarbonyl substituting for methyl, ethyl, n- or i-propyl; optionally any cyano, fluorine and/or chlorine substituting for propenyl, butenyl, ethinyl, propinyl or butinyl; or optionally any fluorine, chlorine or methyl substituting for cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclopropylmethyl, cyclobutylmethyl, cyclopentylmethyl or cyclohexylmethyl,
- 15
- 20 X represents cyano, fluorine, chlorine, bromine, trifluoromethyl, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, methylthio, methylsulfinyl, methylsulfonyl, trifluoromethylthio, trifluoromethylsulfinyl or trifluoromethylsulfonyl,
- Y represents cyano, fluorine, chlorine, bromine, trifluoromethyl, difluoromethoxy, trifluoromethoxy, chlorodifluoromethoxy, trifluoromethylthio, trifluoromethylsulfinyl or trifluoromethylsulfonyl,
- 25
- Z represents hydrogen, cyano, carbamoyl, chlorine, bromine, methyl, methoxy, methylthio, trifluoromethyl, trifluoromethoxy or trifluoromethylthio.
- 30
5. Tetrahydropyridazine derivatives of the formula (I) in accordance with claim 1, wherein R represents cyanomethyl and X represents trifluoromethyl.

6. A process for preparing tetrahydropyridazine derivatives of the formula (I) according to claim 1, wherein one converts

- (a) tetrahydropyridazines of the formula (II)



wherein

X, Y and Z have the above-mentioned meanings,

with compounds of the formula (III)



wherein

$X^1$  represents halogen or the grouping  $R-O-SO_2-O-$  and

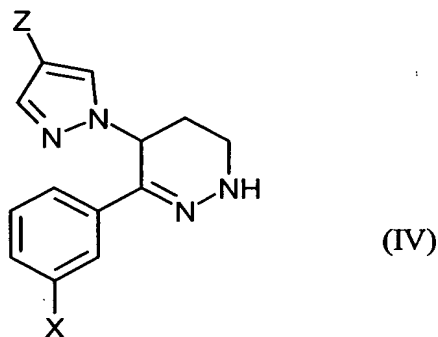
R has the aforementioned meanings,

optionally, in the presence of one or multiple reaction adjuvants and,

optionally, in the presence of one or multiple diluents,

or

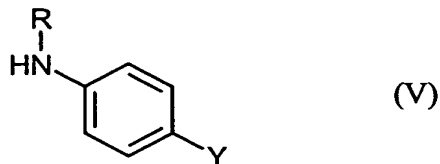
- (b) tetrahydropyridazines of the formula (IV)



wherein

X and Z have the aforementioned meanings,

with N-substituted arylamines of the formula (V)



wherein

R and Y have the aforementioned meanings,

in the presence of a reactive carbon dioxide derivative of the formula

(VI)



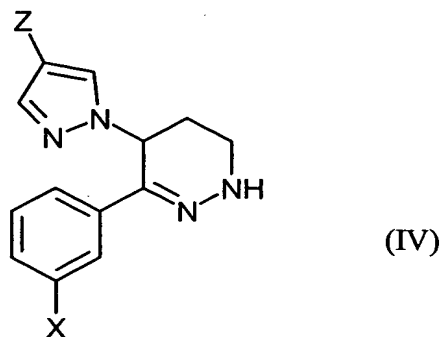
wherein

$X^2$  and  $X^3$  are the same or different and represent halogen, alkoxy, halogenoalkoxy, phenoxy or benzyloxy,

optionally, in the presence of one or multiple reaction adjuvants and, optionally, in the presence of one or multiple diluents,

or

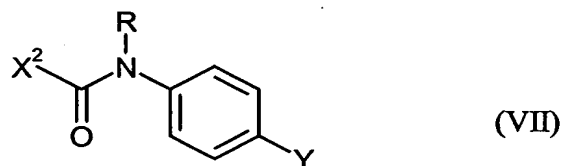
(c) tetrahydropyridazines of the formula (IV)



wherein

X and Z have the aforementioned meanings

with carbamic acid derivatives of the formula (VII)



wherein

R, X<sup>2</sup> and Y have the aforementioned meanings,

5

optionally, in the presence of one or multiple reaction adjuvants and,  
optionally, in the presence of one or multiple diluents,

- 10 7. Pesticides, wherein same comprise at least one compound of the formula (I) according to claim 1.
8. Process for controlling animal pests, wherein compounds of the formula (I) according to claim 1 act on pests and/or their habitat.
- 15 9. Use of compounds of the formula (I) according to claim 1 to control animal pests.
- 10 10. Process for preparing pesticides wherein compounds of the formula (I) in accordance with claim 1 are mixed with extenders and/or surfactants.
- 20 11. Use of compounds of the formula (I) according to claim 1 for preparing pesticides.